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(71) Applicant *(for all designated States except US)*: **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BLOEMEN, Pascal, J., H.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **HENDRIKS, Bernardus, H., W.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(74) Agent: **VISSER, Derk**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

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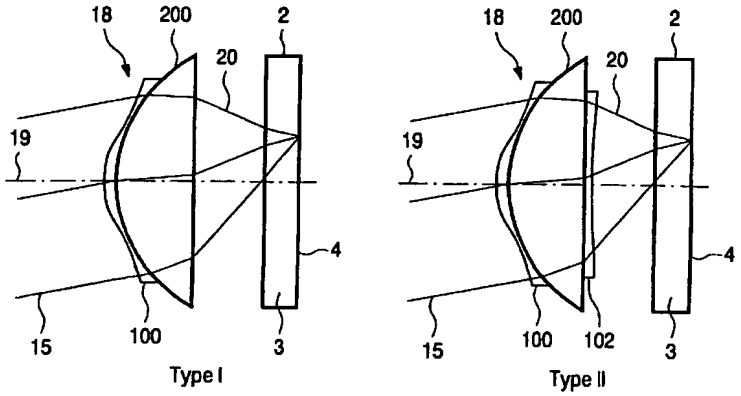
(54) Title: SCANNING DEVICE INCLUDING AN OBJECTIVE LENS FORMED OF TWO MATERIALS



$$0.8 < \frac{t - 1.1\phi + 1.1}{1.18 - 2.28\left[FWD + \frac{t_d}{n_d}\right]} < 1.2 \qquad (I)$$

(57) Abstract: An optical scanning device (1) for scanning an information layer (4) of an optical record carrier (2), the information layer (4) being covered by a transparent layer (3) of thickness t_d and refractive index n_d. The device comprises a radiation source (11) for generating a radiation beam (12, 15, 20) and an objective system (18) for converging the radiation beam on the information layer. The objective system is characterised in comprising a lens comprising a synthetic resin on a substrate, the total thickness t of the lens satisfying the condition: Formula (I), where $FWD + t_d/n_d < 0.51$, and FWD is the free working distance between the lens (18) and carrier (2) and Φ is the entrance pupil diameter of the lens (18), where t, t_d, Φ and FWD are expressed in millimetres.

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